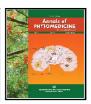
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Ayurveda: Case study

# A case study on successful Ayurvedic management of infertility with low AMH and failed IVF

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#### **Article Info**

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#### **Abstract**

Infertility is one of the major health problems and a socially destabilizing condition for couples, often causing marital disharmony. There are numerous anatomical, physiological, and genetic factors which cause infertility, but nothing is more distressing than a failed IVF with low AMH, which is considered as the end point of modern fertility treatments.

Ovarian reserve is the term used to determine the capacity of the ovary to provide eggs that are capable of fertilization and resulting in a healthy and successful pregnancy. As women age, the number of follicles or eggs available for reproduction gradually declines and AMH level also declines with age. Declining levels of AMH are the marker of poor ovarian reserve or premature ovarian failure in women.

In women undergoing *in vitro* fertilization (IVF) with exceptionally low AMH has poor success rate and the couple is left with the only option of IVF with a donor egg. The signs and symptoms of a patient with low AMH level can be compared to Dhatukshayajanya Vandhyatva (infertility due to tissue depletion) as explained in Harita Samhita. Dhatukshayajanya Vandhyatva occurs due to the depletion of Dhatus or due to inadequate formation of Dhatus, especially Arthava (egg) and Shukra dhatu (sperm) which in turn leads to reduction in fertility potential and Anapathyatha (infertility). The present case study is about a 32-years-old woman, having a history of infertility, irregular periods, anovulatory cycles and scanty flow. She has a history of failed IVF with AMH 0.02.

Jeehv (Ayurvedic Proprietary medicine) tablet, which contains Deepan-Pachan, Aamhara, Arthavjanana, Beeja-shuddhikar, Garbhasthapak, Rasayana and Vrushya potent herbs like Shivlingi (*Diplocyclos palmatus*), Putranjivak (*Putranjiva roxburghii*), Jeevanti (*Leptadenia reticulata*), Shatavari (*Asparagus racemosus*), etc., was given internally along with the advice to follow healthy diet and lifestyle. Patient successfully conceived after taking 8 months of treatment. The patient reported regularization of her period, improvement in the mood and weight reduction. It is observed that her timely ovulation started taking place after 3 months of treatment, which was absent earlier. Jeehv Ayurvedic tablets have shown best results in this complicated infertility case with a history of failed IVF along with low AMH count.

## 1. Introduction

Infertility is defined as a failure of conception after 1 year of regular unprotected intercourse (Dutta and Konar, 2003). Infertility is not fatal, but it carries with it an additional burden of social stigma and a sense of personal failure. It is a global health issue affecting about 8% to 10% of couples (Dutta and Konar, 2003). Causes of infertility can be multiple like PCOS, AMH issues, PID, tubal block, low sperm count, endometriosis, stress, *etc.*, but the most common one nowadays is poor egg quality due to low AMH. Irrespective of the cause for infertility, most common conventional fertility treatments which are advised include ovulation induction, IUI and IVF.

In Ayurveda, Acharya Sushruta described female infertility as Vandhyatva and mentioned Garbha Sambhava Samagri as four

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Copyright © 2023 Ukaaz Publications. All rights reserved. Email: ukaaz@yahoo.com; Website: www.ukaazpublications.com essential factor which plays role in healthy conception, *i.e.*, Rutu (fertile period), Kshetra (reproductive system), Beeja (healthy ovum), Ambu (nutrition). Manasika Abhitapa (psychological and emotional factors) is also one of the factors which influences the process of conception and can be a great obstacle in conceiving. In the current scheme of things, all these four factors described under Garbha Sambhav Samagri along with Manasika Abhitapa have been affected at different levels. Poor egg quality also indicates some amount of Beejadushti which happens due to Vata vitiation. Low AMH can be directly correlated to Arthava-kshaya as well. Having said that as per Ayurvedic classics, this can be better treated with Arthavajanana and Vatashamana Chikitsa. As per Ayurvedic classics, herbs like Shivlingi, Putranjeevak, Jivanti, Shatavari, *etc.*, help in Arthavajanana and in balancing Vata which can be a highly effective treatment in such scenarios.

## 2. Case report

A 32-years-old woman, trying for her first child. approached Vedsara Ayurveda Clinic, Andheri West, Mumbai with the history of infertility, trying to conceive from past one and half years of married life, with complaints of period irregularities along with scanty flow and an extremely low AMH count, *i.e.*, 0.02. She recently had one failed IVF in May 2021. She was mentally depressed and too stressed for quite some time, after that she took a gap of 7 months where she did not consume any medicines.

#### 2.1 Menstrual history

Menarche	13 years	
Cycle	Irregular (once in 35-60 days)	
No. of days of bleeding	2-3 days	
No. of pads used	1-2 pads/day	
Other findings	Mild dysmenorrhea observed with clotting.	

**Obstetric history**: Gravida - 0, Parity - 0, Live birth - 0, Abortion - 0  $(G_0P_0L_0A_0)$ 

#### 2.2 Personal history

Diet	Mixed	
Appetite	Good	
Bowel	Constipated	
Bladder	Normal	
Sleep	Disturbed	
Allergy	Nil	

Family history: Nil.

#### 2.3 Past fertility treatment history

The patient was trying to conceive for one and half years.

#### Ingredients of the medicine given

•	She took three cycles of hormonal treatment, ovulation induction
	was done, for which she was given HCG injections, but still
	failed IUI in December 2020.

- Further IVF was advised and done in May 2021, which failed.
   AMH count was exceptionally low 0.30, only 2 embryos were formed out of which only one was proceeded ahead for embryo transfer on 22<sup>nd</sup> May 2021, which failed to implant.
- After failing IVF, her AMH count decreased to 0.02.
- Further, she advised IVF with donor egg.

#### Past surgical history: Nil

#### 2.4 Investigations

- The husband's semen analysis test was normal which was done in March 2021.
- Blood routine investigation was found to be normal which was done in March 2021.
- TSH 2.7 ng/ml and serum prolactin was 15 ng /ml done in March 2021.
- USG showed normal anteverted uterus and both ovaries are normal, Dated March 2021.
- AMH 0.02, done after IVF failed in July 2021.

#### 2.5 Ayurvedic management

Internal medicine was given in first visit in December 2021.

Tablet Jeehv (Ayurvedic proprietary medicine), two tablets twice daily after food.

Medicine given	Ingredients	Dosage
1. Jeehv fertility supplement	Putranjivak, Shivlingi, Shilajit, Shatavari, Jivanti, <i>Aloe vera</i> , Ashoka, Lodhra, Ashwagandha, Devdaru, Katuki, Haritaki, Shuddha Kasis, Bang Bhasma, Shuddha Hing, Shuddha Tankan, Punarnava, preservatives, and excipients.	Two pills after breakfast and two pills after dinner

## 2.6 Advice

- Follow the Gynovedic diet and lifestyle thoroughly along with the medicines.
- Regular exercise for 30 min.
- Meditation early in the morning for 20 min.
- Yoga has also been advised.

#### 2.7 Follow ups

#### First follow up (January 22)

 Patient reported improvement in energy level and reduced mood swings. But, the period did not arrive.

## Second follow up (March 22)

 Patient was following a diet thoroughly along with a regular light walk for 30 mins with meditation in the morning.

- First period observed within 45 days, improvement in the period flow was reported with less clots and decrease in period pain was reported by the patient.
- The second period was observed within 40 days.

## Third follow up (May 22)

- Patient reported that the third period arrived exactly on time, but no ovulation was observed, the patient was tracking the ovulation phase with the help of an ovulation kit.
- Improvement in period flow has been observed in each progressing cycle.
- Consistent weight loss of about 5 kg has been observed. Patient reported that she was feeling much more positive.
- Patient reported that the fourth period was on time and this time ovulation had taken place, Patient was advised to be in contact with the partner during the fertile phase.

### Fourth follow up (July 22)

- The patient reported that the fifth and sixth periods were on time and ovulation had taken place.
- The patient was following all the advice, has been tracking the ovulation phase thoroughly and was in contact with the partner during the fertile phase.

#### Fifth follow up (August 22)

- Patient reported that she had missed her periods in August, took a UPT test after 7 days of her missed period date, it came positive.
- Pregnancy was further confirmed with beta HCG test. Patient consulted her Gynecologist for further follow ups.
- She was further on tablet Susten 200, one tablet B.D. along with iron folic acid and calcium supplement. She was put on strict bed rest considering the fact that it was a precious pregnancy.
- Her 5<sup>th</sup> month anomaly scan is perfectly normal. Currently the patient's seventh month of healthy pregnancy is going on.

#### 3. Discussion

In the current modern era low AMH is a problem which is quite common and can be directly correlated with Arthavakshaya, according to Ayurvedic classics. It is very natural for the number of eggs to get depleted as the age starts advancing. But, nowadays it is happening prematurely and the main reason behind this is the change in diet and lifestyle, disturbed routine, tension, stress, injudicious use of antibiotics, *etc.* It affects egg quality and quantity significantly.

Low AMH can be considered as Arthavakshaya, and poor egg quality can be correlated with Beejadushti. The two basic principles to treat this are: Arthavajanana and Beejashudhi chikitsa. From the broad references described in the classics, the condition like Arthava kshaya takes place due to Apakwa Rasadhathu formation as a consequence of vishamagni which further leads to reduction in reproductive potential (Gyanendra Pandey *et al.*, 2014).

Beejshudhi chikitsa includes 2 important aspects. The first aspect is usage of the right herbs like Shivlingi, Putranjivak, Kumari, Shatavari, *etc.* As per ayurvedic classics certain unhealthy diet and lifestyle habits can affect Beeja or ovum adversely. So, avoiding Beejopaghatakar bhavas to follow a healthy diet lifestyle is of paramount importance.

The Ayurvedic line of treatment for this collectively includes Deepan-Pachan, Strotoshodhan, Amahara, Arthavajanan, Beeja suddhi, Garbhasthapan, Rasayan, Vrushya chikitsa. Herbs like Haritaki help to remove toxins, *i.e.*, Aama and herbs like Kutki (*Picrorhiza kurroa*) and Hingu (*Ferula asafoetida*) help in improving digestion and metabolism. Shivlingi helps to improve and enhance the egg quality. Putranjivak helps to improve the receptivity of uterine lining, thereby helping in healthy implantation. Herbs like *Aloe vera* and Ashoka (*Saraca indica*) are best in Arthav Janana and herbs like Shilajit, Shivlingi helps in Beej Shuddhi. Which further purifies the channels (strotasas), enhances the quality of dhatus and increases the immunity of reproductive organs. This is how collectively Jeehv works to boost fertility.

#### 4. Conclusion

Low AMH Count is quite common in women of reproductive age that puts women at an elevated risk of infertility. In the current case study, Ayurvedic formulation Jeehv has shown very encouraging results in treating infertility due to low AMH with a history of IVF failure. It was quite effective in treating associated complications like anovulation, period irregularities and period pain too.

#### **Conflict of interest**

The authors declare no conflicts of interest relevant to this article

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